KDHE Hosts GIS Users Group Forum

On Dec. 7, KDHE held an open forum on ArcGIS to address a growing demand within the health community of GIS capabilities and interest, where users and non-users of ArcGIS can learn and find resources to enhance their abilities and programs when using ArcGIS.

The forum was co-sponsored by KDHE and ERSI, the agency's vendor for software. KDHE's A.J. Thomas coordinated the forum.

A.J. Thomas, KDHE's GIS guru, welcomes forum attendees to the Dec. 7 conference.

Presenters came from different areas of the country and shared their expertise and projects on the uses and applications of ArcGIS. Kent Nelson, from the Kansas Geological Survey (KGS) in Lawrence shared with the group what KGS is doing in the area of data collection.

That same week ESRI conducted two levels of ArcGIS training at KDHE, offering bureau participants hands-on experience with the software.

The agency is moving forward with ArcGIS program capabilities and hopes to maintain the KDHE GIS Users Group and have more GIS training in the future.

The next KDHE GIS users group meeting will be held Feb. 10 from 10 a.m. to 12:15 p.m. in the 4th floor Azure Room.

Meeting Agenda

Introductions – 10:00 a.m.
Announcements – 10:15 a.m.
A presentation of the Kansas View – 10:30 a.m.
An overview of the Kansas View program located at KU
An overview about data types and appropriate usage for remotely sensed data
Training Workshops – 11:30 a.m.
Exploring the VBA Environment in ArcGIS
Working with Map Projections and Coordinate Systems in ArcGIS
Other courses?
New business - 11:45 a.m.
Next meeting date/Training dates -
Adjourn - 12:15

- Continued -

Primary Uses for GIS

1) **As a presentation tool, a GIS shows spatial patterns of information**. For KDHE bureaus occupying multiple floors, GIS can show who has what kind of computer in seconds with the touch of a button. It can incorporate the evacuation plan for each floor and target those individuals with special needs (know exactly where they sit in their desks and floors) during an emergency.
2) **It allows the user to query databases**, organize and show data geographically, and manipulate and analyze the data. An example of this use is the monitoring the West Nile virus in Kansas and tracking lead poisoning in children in Wichita and Kansas City.
3) **Collecting and organizing data,** such as public health information on vital statistics (birth, death, marriage), program data demographics (clients, utilization, resource distribution), and hospitals (service events, admissions, registration)
4) **Helpful to public health command centers** during outbreak analysis and real-time surveillance of outbreaks. Data can be geocoded based on gender, age, location of the outbreak or first case, or hospital code assigned to a disease or illness. The program can alert the command center when a threshold is reached, and they can map the outbreak movement using tables and demographics.
5) **Aids in health planning.** For example, during school zoning discussions, a risk assessment map can be generated and presented to the city planning commission on the presence of hazardous materials, in an effort to protect the health of students.
6) **Helps during public health preparedness and incident response tracking events.** For example, GIS was used to track all the debris from the Space Shuttle Columbia explosion on Feb. 3, 2003 along the California-Texas route.
7) **Helps identify environmental health issues.** For example, breast cancer incidences and toxic waste substances can be tracked and analyzed using GIS.
8) **KDHE uses GIS in the following ways:**
    - **Meth Lab tracking in Kansas –** The Bureau of Environmental Remediation at KDHE uses GIS to track and analyze the incidence of meth labs across the state.
    - **Lead poisoning using GIS Visualization maps –** KDHE is involved in this project in Wichita and Kansas City.
    - **Kansas Newborn hearing screening visualization maps and demographics**
    - **Epidemiology and disease prevention –**The 2003 annual summary of rabies incidents per county, per animal type, used GIS technology.
    - **HIV/AIDS -** GIS is used to determine transmission and prevalence by community and county.
    - **West-Nile Virus –** GIS technology helped track the number of human cases (Neuro invasive cases) in 2004.
    - **Other environmental GIS uses** include tank inventory, air quality monitoring, air permits, labs, and specimen courier services, source water

assessment, contaminated sites plumes, emergency landfills operations, animal feeding operations, and equs bed contamination.